

Attorney's Docket No. 5770.21

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Bastiaan Driehuys et al.

Serial No.: 09/804,369

Filed: March 12, 2001

For: **DIAGNOSTIC PROCEDURES USING DIRECT INJECTION OF GASEOUS HYPERPOLARIZED  $^{129}\text{Xe}$  AND ASSOCIATED SYSTEMS AND PRODUCTS**

March 25, 2003

Box AF  
Commissioner for Patents  
Washington, DC 20231Examiner: Michael G. Hartley  
Group Art Unit: 1616

## AMENDMENT AFTER FINAL

Sir:

In the claims:

Please cancel Claim 1, Claim 22 and Claim 23 without prejudice thereto.

Please replace the below amended claims for the pending claims of like number pursuant to 37 CFR 1.121.

2. (Amended) A method according to Claim 20, further comprising the step of controlling the rate of injection to less than about 3 cc/s at which the injecting step is performed to thereby control the delivery rate of the polarized gaseous  $^{129}\text{Xe}$  into the vein.

3. (Amended) A method according to Claim 20, wherein said injected quantity is less than about 20 cc's.

4. (Amended) A method according to Claim 20, wherein said identifying step includes determining based on said injecting into the vein step whether the pulmonary circulatory path is blocked or restricted based on the presence of polarized  $^{129}\text{Xe}$  in the pulmonary arteries.

5. (Amended) A method according to Claim 20, wherein said obtaining step includes obtaining NMR signal data associated with the presence of gaseous phase polarized  $^{129}\text{Xe}$  in